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A New Species of the Genus *Kenyentulus* (Protura) from Yunnan, Southwest China[1)]

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Abstract A new species of the proturan genus *Kenyentulus* TUXEN is described from Yunnan Province, Southwest China, under the name *K. kunmingensis*. It is closely similar to *K. jiuzhaiensis* from Sichuan Province, Southwest China, but is distinguished from the latter by the relative lengths of foretarsal sensillae as well as by the structure of striate band on abdomen VIII.

Key words: Protura; new species; *Kenyentulus*; Yunnan.

The present paper is the fifth part of the series dealing with the results of investigations of the proturan collection of our Sino–Japaense Cooperative Program. A new species of the genus *Kenyentulus* TUXEN is to be described from Kunming, Yunnan Province, Southwest China, in the following lines. The type specimen designated in the present paper is deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica.

Before going further, we wish to express our hearty thanks to Messrs. CHENG Yin-cun, XIAO Ning-nian, Dr. Shun-Ichi UÉNO and all who favoured us with every kind of help through our works.

Kenyentulus kunmingensis sp. nov.

(Figs. 1–2)

Specimens examined. 1♂ & 2♀, Taihua Temple, 2,100 m alt., Xishan, Kunming, Yunnan, 7-XI-1992, YIN Wen-ying and others; 1♀, Huating Temple, 2,000 m alt., Xishan, Kunming, Yunnan, 7-XI-1992, XIE Rong-dong and others.

Body length 560–610 μm.

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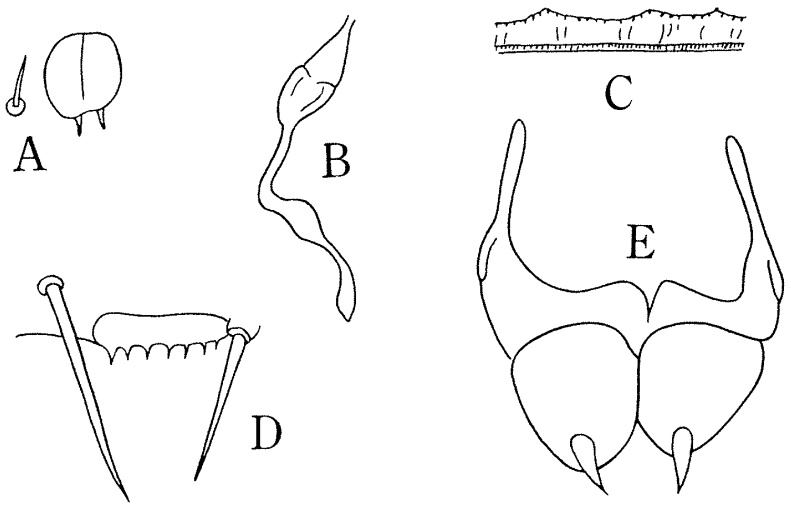

Fig. 1. *Kenyentulus kunmingensis* sp. nov. A, Pseudoculus; B, filamento di sostegno; C, striate band on abdomen VIII; D, comb on abdomen VIII; E, female squama genitalis.

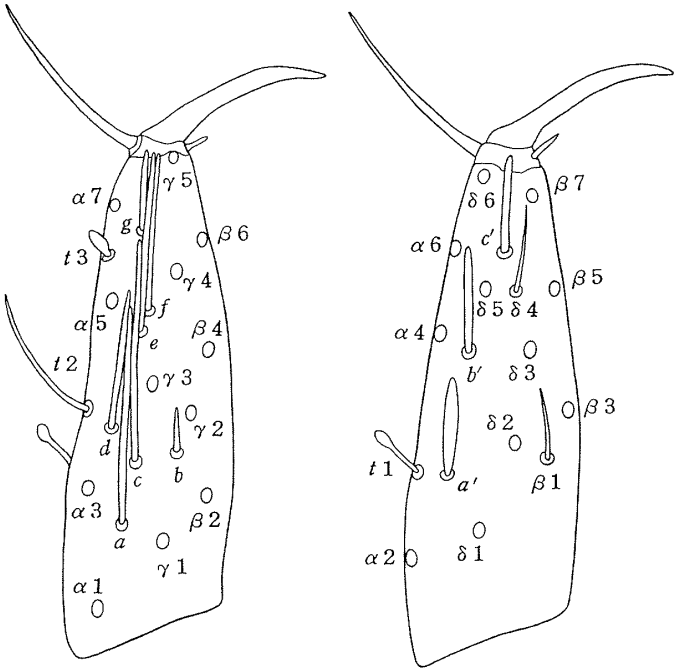

Fig. 2. *Kenyentulus kunmingensis* sp. nov. Foretarsus, exterior (left) and interior (right) views.

Head oval, 95–100 μm in dorsal view. Additional seta absent. Maxillary palpus with two slender sensillae on penultimate segment, dorsal sensilla subequal to the ventral one in length and shape. Labial palpus rudimentary, with three setae and one blunt sensilla. Pseudoculus circular, with two lids posteriorly (Fig. 1A), PR = 16. Filamento di sostegno rather short, the proximal part with one or two additional dilatations (Fig. 1B).

Foretarsus (Fig. 2) 63–64 μm, claw slender, TR=2.6–2.9; empodium short, S-shaped seta subequal to the claw in length. Dorsal sensilla *t1* baculiform, BS=0.5–0.6; *t2* thin and relatively long; *t3* normal. Exterior sensilla *a* slender and long, its apex reaching the base of *e*; *b* short, its apex slightly surpassing the base of γ2; *c* long, its apex hardly reaching the base of *g*; *d* shorter than *c*, its apex slightly surpassing the base of *f*; *e* and *f* very close to each other; the apices of *e*, *f* and *g* reaching the base of γ5. Interior sensilla *a'* somewhat broad, at about the same level as *t1*; *b'* normal; *c'* slightly surpassing tarsus. Ventral seta β1 7–8 μm and interior seta δ4 8–9 μm in length.

Chaetotaxy as shown in Table 1. Abdominal tergites I–VI each with three pairs of anterior setae, A1, 2 and 5, P 3a absent; terg. VII with A2, 4 and 5, P 3a present; terg. VIII with the central seta Mc and without M1; terg. IX with seven pairs of tergal setae, 1, 2, 3, 3a, 4, 4a and 5; terg. X with six pairs, 1, 2, 3, 3a, 4 and 5; terg. XI with three pairs, 1, 2 and 3; sternite VIII without posterior seta. On thoraces II–III, dorsal P1a and 2a very short, about 2 μm, less than one-tenth of P1 in length. On terg. II–VI, P3 situated somewhat anterior to the other posterior setae, P1a and 2a short, 3–4 μm, less than one-sixth of P1 in length.

Abdominal appendages II–III each with two setae, the medial apical seta short, less than a half the subapical in length. On abdomen VIII, striate band

Table 1. Chaetotaxy of *Kenyentulus kunmingensis* sp. nov.

	Dorsal		Ventral	
	Formula	Composition of setae	Formula	Composition of setae
Thorax I	4		4–2	A1, 2, M
			6	P1, 2, 3
II–III	6	A2, 4, M	7–2	Ac, 2, 3, 4, M
	16	P1, 1a, 2, 2a, 3, 4, 5, 5a	4	P1, 2
Abdomen I	6	A1, 2, 5	3	Ac, 2
	12	P1, 1a, 2, 2a, 3, 4	4	P1, 2
II–III	6	A1, 2, 5	3	Ac, 2
	16	P1, 1a, 2, 2a, 3, 4, 4a, 5	5	Pc, 2, 3
IV–VI	6	A1, 2, 5	3	Ac, 2
	16	P1, 1a, 2, 2a, 3, 4, 4a, 5	8	P1, 1a, 2, 3
VII	6	A2, 4, 5	3	Ac, 2
	18	P1, 1a, 2, 2a, 3, 3a, 4, 4a, 5	8	P1, 1a, 2, 3
VIII	6–7	A1, 3, 5, Mc, 2, 3, 4	4	1, 2
	8	P2, 3, 4, 5	0	
IX	14	1, 2, 3, 3a, 4, 4a, 5	4	
X	12	1, 2, 3, 3a, 4, 5	4	
XI	6	1, 2, 3	6	
xII	9		6	

Notation of body setae is referred to that in YIN, XIE, ZHANG and IMADATÉ (1995).

reduced, with scattered faint striae along the proximal margin (Fig. 1C); comb consisting of about seven irregular teeth (Fig. 1D). Female squama genitalis with pointed acrostylus (Fig. 1E).

Holotype: ♀, Taihua Temple, 2,100 m alt., Xishan, Kunming, Yunnan, 7-XI-1992, collected by YIN Wen-ying and others.

Notes. The present new species is closely similar in many respects to *Kenyentulus jiuzhaiensis* from Sichuan Province in Southwest China (TANG & YIN, 1986). It is, however, distinguishable from the latter by the relative lengths of foretarsal sensillae, *a*, *c*, *e*, *f* and *g* as well as by the structure of striate band on abdomen VIII.

The specific name is derived from Kunming, the name of the general area, in which was found this new proturan.

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